

INVENTOR SEARCH

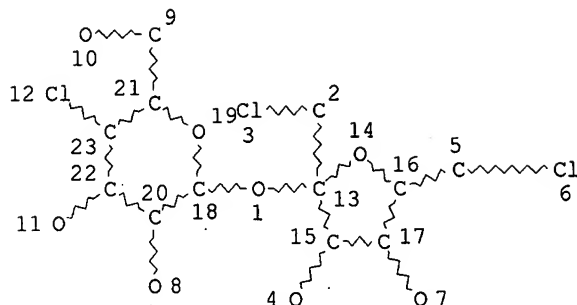
Krishnan 10/092,715

May 7, 2003

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NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L4 15 SEA FILE=REGISTRY FAM FUL L2
 L5 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 (L) PUR/RL
 L6 95 SEA FILE=HCAPLUS ABB=ON PLU=ON CATANI S?/AU
 L7 11 SEA FILE=HCAPLUS ABB=ON PLU=ON VERNON N?/AU
 L8 7 SEA FILE=HCAPLUS ABB=ON PLU=ON NEIDITCH D?/AU
 L9 585 SEA FILE=HCAPLUS ABB=ON PLU=ON WILEY J?/AU
 L10 4 SEA FILE=HCAPLUS ABB=ON PLU=ON MICINSKI E?/AU
 L11 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (L5 OR L6 OR L7 OR L8 OR L9 OR L10)

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L11 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:391728 HCAPLUS

DOCUMENT NUMBER: 136:369947

TITLE: Improved sucralose composition and process for its preparation

INVENTOR(S): El Kabbani, Fiesal; Catani, Steven J.;
 Heiss, Christian; Navia, Juan; Brohmi, Amal

PATENT ASSIGNEE(S): McNeil-PPC, Inc., USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002040495	A2	20020523	WO 2001-US43491	20011116

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May 7, 2003

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002026918 A5 20020527 AU 2002-26918 20011116

US 2002120134 A1 20020829 US 2001-991123 20011116

PRIORITY APPLN. INFO.: US 2000-249782P P 20001117

WO 2001-US43491 W 20011116

AB A process for the crystn. of sucralose from an aq. soln. comprising
controlling the pH of said aq. soln. so as to maintain the pH in the range
of from about 5.5 to about 8.5 during the formation of sucralose crystals.

IT 56038-13-2P, Sucralose

RL: IMF (Industrial manufacture); PUR (Purification or recovery)

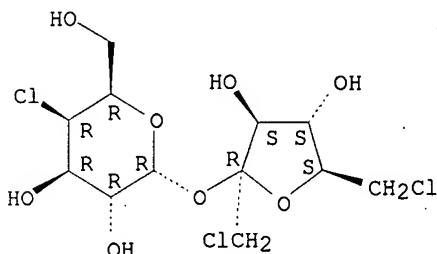
; PREP (Preparation)

(improved sucralose compn. and crystn. process for its prepn.)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-
fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:568837 HCAPLUS

DOCUMENT NUMBER: 129:189606

TITLE: Chromatographic purification of chlorinated sucrose

INVENTOR(S): Catani, Stephen J.; Leinhos, Duane;

O'Connor, Thomas

PATENT ASSIGNEE(S): McNeil-PPC Inc., USA

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835974	A1	19980820	WO 1998-US2927	19980211

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,

DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,
 LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ,
 VN, YU, ZW

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9861675 A1 19980908 AU 1998-61675 19980211

US 5977349 A 19991102 US 1998-22071 19980211

EP 970096 A1 20000112 EP 1998-906453 19980211

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI

NZ 337573 A 20000623 NZ 1998-337573 19980211

JP 2001511812 T2 20010814 JP 1998-535981 19980211

NO 9903920 A 19991011 NO 1999-3920 19990813

PRIORITY APPLN. INFO.: US 1997-46980P P 19970213

WO 1998-US2927 W 19980211

OTHER SOURCE(S): MARPAT 129:189606

AB A process for sepg., in the liq. phase, a reaction mixt. which comprises a first chlorinated sucrose and at least one addnl. component selected from the group consisting of at least one other chlorinated sucrose different from said first chlorinated sucrose, salt and solvent, by injecting said reaction mixt. onto a fixed bed of solid adsorbent and treating with a desorbent such that: (a) the first chlorinated sucrose passes through the adsorbent into a first recoverable product stream rich in said first chlorinated sucrose at a rate, which is different than the rate at which, (b) at least one of said addnl. components passes through the adsorbent into at least a second recoverable stream rich in said addnl. component.

IT 56038-13-2 69414-04-6

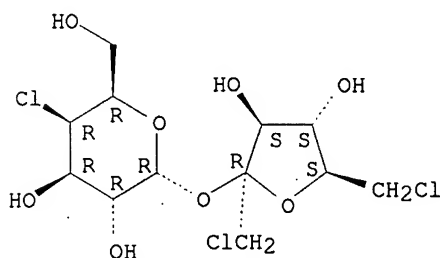
RL: PRP (Properties)

(chromatog. purifn. of chlorinated sucrose through solid adsorbent)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

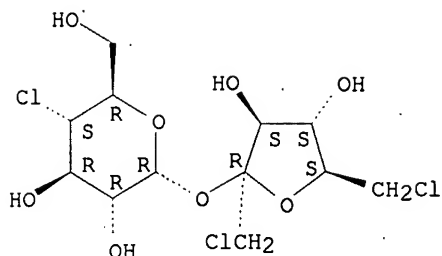
Absolute stereochemistry.



RN 69414-04-6 HCAPLUS

CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1996:229103 HCAPLUS
 DOCUMENT NUMBER: 124:343978
 TITLE: Production of sucralose without intermediate isolation of crystalline sucralose-6-ester
 INVENTOR(S): Navia, Juan L.; Walkup, Robert E.; Vernon, Nicholas M.; Neiditch, David S.
 PATENT ASSIGNEE(S): McNeil-PPC, Inc., USA
 SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 323,954, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5498709	A	19960312	US 1995-448710	19950524
AU 9534201	A1	19960502	AU 1995-34201	19951011
AU 707557	B2	19990715		
IL 115562	A1	20001121	IL 1995-115562	19951011
CA 2160641	AA	19960418	CA 1995-2160641	19951016
FI 9504908	A	19960418	FI 1995-4908	19951016
NO 9504111	A	19960418	NO 1995-4111	19951016
EP 708110	A2	19960424	EP 1995-307329	19951016
EP 708110	A3	19960807		
EP 708110	B1	20010314		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08208679	A2	19960813	JP 1995-291620	19951016
ZA 9508724	A	19970416	ZA 1995-8724	19951016
BR 9504423	A	19970527	BR 1995-4423	19951016
RU 2155769	C2	20000910	RU 1995-118102	19951016
AT 199723	E	20010315	AT 1995-307329	19951016
ES 2157304	T3	20010816	ES 1995-307329	19951016
PRIORITY APPLN. INFO.:			US 1994-323954	B2 19941017
			US 1995-448710	A 19950524

OTHER SOURCE(S): CASREACT 124:343978
 AB A process is claimed for producing sucralose from a feed mixt. of (a) 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose, (b) salt including alkali metal or alk. earth metal chloride, (c) water, and (d) other chlorinated sucrose byproducts, in a reaction medium comprising a

tertiary amide, wherein said process comprises: (i) deacylating the 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose by raising the pH of the aq. soln. of (a), (b), (c) and (d) to about 11 (±.1) at a temp. and for a period of time sufficient to effect said deacylation, to produce an aq. soln. comprising sucralose, salt including alkali metal or alk. earth metal chloride, and other chlorinated sucrose byproducts, in a reaction medium comprising a tertiary amide; (ii) removing said tertiary amide; and (iii) recovering sucralose from the product of step (ii). A soln. of crude sucrose-6-acetate in DMF (1.447 Kg) contg. 416.94 g (1.084 mol) sucrose-6-acetate was dild. with 2.51 kg fresh DMF, cooled to -2.degree., and stirred vigorously while phosgene (1.125 Kg, 99%, 11.26 mol) was added at a rate of 5.4 to 6.7 g/min. The reaction mixt. was allowed to stir at ambient temp. for 30 min, then heated to 115.degree. over a 2-3 h period, then held at 115.degree. ±. 1.degree. for 1.75 h, then cooled to 35.degree. over 30 min; the final mass, 4.34 kg, was carried on to the dual stream caustic quench with NaOH/DMF/water, affording approx. 9 kg of quenched mixt. contg. 2 wt. % 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose-6-acetate (TGS-6-Ac). DMF and tarry, polymeric impurities were removed by steam stripping; for every 9 kg batch of feed, approx. 13 kg of steam-stripped bottoms were produced with a TGS-6-Ac concn. of about 1.5%-wt.; quenched feed contg. 1.8% TGS-6-Ac, 8.5% salts, 54.6% water, and 30.4% DMF, was stripped to produce bottoms contg. 1.6% TGS-6-Ac, 9.8% salts, 84.9% water, and 0.1% DMF residual (99.6% removal of DMF). The crude brine soln. of TGS-6-Ac (15.4 kg) was subjected to deacetylation by raising the pH of the soln. to 11.5 with 50% wt./wt. NaOH; after deacetylation, the soln. was neutralized with concd. HCl. Sucralose was isolated by counter-current extn. with Et acetate and crystn. from Et acetate (providing 33.5 g sucralose) or water (20.2 g sucralose).

IT 56038-13-2P, Sucralose

RL: IMF (Industrial manufacture); PUR (Purification or recovery)

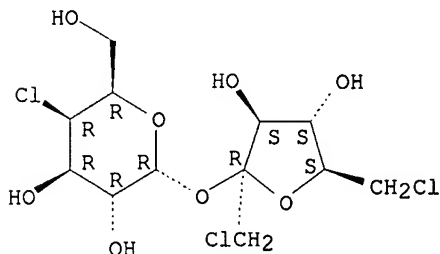
; SPN (Synthetic preparation); PREP (Preparation)

(prodn. of sucralose without intermediate isolation of cryst. sucralose-6-ester)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:583592 HCAPLUS

DOCUMENT NUMBER: 115:183592

TITLE: Extraction of 1,3-diacyloxy-1,1,3,3-

INVENTOR(S): tetrahydrocarbyldistannoxanes from mixtures with
sucrose 6-esters
PATENT ASSIGNEE(S): Vernon, Nicholas M.; Walkup, Robert E.
Noramco, Inc., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5034551	A	19910723	US 1990-512690	19900423
IL 97891	A1	19950731	IL 1991-97891	19910417
AU 9175377	A1	19911024	AU 1991-75377	19910419
AU 631062	B2	19921112		
JP 07097387	A2	19950411	JP 1991-113708	19910419
JP 2882548	B2	19990412		
CA 2040933	AA	19911024	CA 1991-2040933	19910422
CA 2040933	C	20020129		
FI 9101941	A	19911024	FI 1991-1941	19910422
FI 97886	B	19961129		
FI 97886	C	19970310		
NO 9101590	A	19911024	NO 1991-1590	19910422
NO 180009	B	19961021		
NO 180009	C	19970129		
EP 455390	A2	19911106	EP 1991-303565	19910422
EP 455390	A3	19920722		
EP 455390	B1	19950920		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
ZA 9102995	A	19921230	ZA 1991-2995	19910422
RU 2036197	C1	19950527	RU 1991-4895127	19910422
ES 2080895	T3	19960216	ES 1991-303565	19910422
			US 1990-512690	A 19900423

PRIORITY APPLN. INFO.:

AB 1,3-Diacyloxy-1,1,3,3-tetra(hydrocarbyl)distannoxanes were sepd. from their mixts. with sucrose 6-esters and polar aprotic solvents by addn. of a small amt. of H₂O and extn. using a H₂O-immiscible org. solvent. Thus, 1,3-di(6-O-sucrose)-1,1,3,3-tetrabutyl-distannoxane (prepn. given) in DMF was stirred overnight with (PhCO)₂O; the mixt. was agitated with cyclohexane and H₂O and the cyclohexane phase was concd. to give 1,1,3,3-tetrabutyl-1,3-dibenzoyloxydistannoxane while concn. of the DMF phase gave crude sucrose-6-benzoate contg. 0.9% wt./wt. Sn.

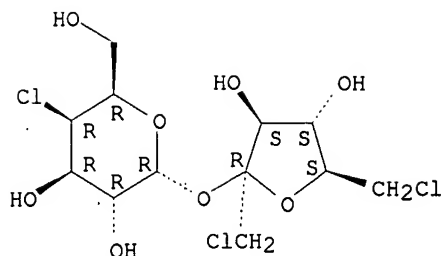
IT 56038-13-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:472137 HCAPLUS

DOCUMENT NUMBER: 115:72137

TITLE: Chlorination of sucrose 6-esters

INVENTOR(S): Walkup, Robert E.; Navia, Juan L.; **Vernon, Nicholas M.**

PATENT ASSIGNEE(S): Noramco, Inc., USA

SOURCE: U.S., 19 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4980463	A	19901225	US 1989-382147	19890718
IL 94994	A1	19940624	IL 1990-94994	19900706
CA 2021632	AA	19910119	CA 1990-2021632	19900716
NO 9003190	A	19910121	NO 1990-3190	19900717
NO 175532	B	19940718		
NO 175532	C	19941026		
EP 409549	A2	19910123	EP 1990-307784	19900717
EP 409549	A3	19920826		
EP 409549	B1	19960117		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AU 9059069	A1	19910124	AU 1990-59069	19900717
AU 625908	B2	19920716		
JP 03218388	A2	19910925	JP 1990-187328	19900717
JP 3183506	B2	20010709		
ZA 9005615	A	19920325	ZA 1990-5615	19900717
SU 1836377	A3	19930823	SU 1990-4830726	19900717
FI 95802	B	19951215	FI 1990-3603	19900717
FI 95802	C	19960325		
AT 133175	E	19960215	AT 1990-307784	19900717
ES 2088973	T3	19961001	ES 1990-307784	19900717
			US 1989-382147 A	19890718

PRIORITY APPLN. INFO.:

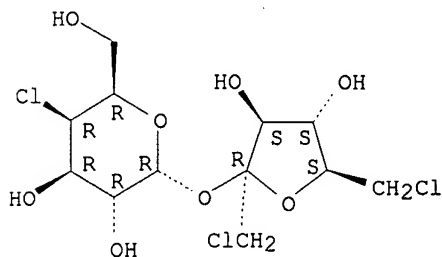
AB Sucrose 6-esters are chlorinated with a chloroformiminium salt (formed in situ from an acid chloride, e.g., phosgene, and a tertiary amide e.g., DMF) via an alkoxyformiminium chloride intermediary (formed by reaction of the chloroformiminium salt with the OH group of the sucrose 6-ester) to give predominantly 1',4,6'-trichlorosucrose 6-esters. Sucrose 6-benzoate in DMF at -33.degree. was treated with phosgene, at 85.degree. for 60 min, and then at 115.degree. for 4.5 h to give, after cooling and treating with

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May 7, 2003

NaOH, 58.9% a product contg. 86.8% sucralose 6-benzoate.
 IT 56038-13-2P, Sucralose
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, by hydrolysis of sucralose benzoate)
 RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1990:552966 HCAPLUS
 DOCUMENT NUMBER: 113:152966
 TITLE: Chlorination of sucrose or its derivatives by thionyl chloride and a nitrogen base
 INVENTOR(S): Khan, Riaz Ahmed; Sankey, George Henry; Simpson, Philip John; **Vernon, Nicholas M.**
 PATENT ASSIGNEE(S): Tate and Lyle PLC, UK
 SOURCE: Brit. UK Pat. Appl., 29 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2222827	A1	19900321	GB 1989-20600	19890912
GB 2222827	B2	19920819		
EP 364100	A2	19900418	EP 1989-309227	19890912
EP 364100	A3	19910911		
EP 364100	B1	19921125		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 82752	E	19921215	AT 1989-309227	19890912
ES 2052923	T3	19940716	ES 1989-309227	19890912
DK 8904558	A	19900317	DK 1989-4558	19890915
DK 170931	B1	19960318		
FI 8904359	A	19900317	FI 1989-4359	19890915
FI 92323	B	19940715		
FI 92323	C	19941025		
NO 8903688	A	19900319	NO 1989-3688	19890915
NO 171916	B	19930208		
NO 171916	C	19930519		
AU 8941437	A1	19900322	AU 1989-41437	19890915

AU 615574	B2	19911003		
ZA 8907039	A	19900725	ZA 1989-7039	19890915
CA 1320722	A1	19930727	CA 1989-611604	19890915
SU 1836376	A3	19930823	SU 1989-4742019	19890915
JP 02167293	A2	19900627	JP 1989-240498	19890916
JP 2923310	B2	19990726		
US 5128248	A	19920707	US 1989-412904	19890926
GB 2224733	A1	19900516	GB 1989-21795	19890927
GB 2224733	B2	19920520		
JP 02211889	A2	19900823	JP 1989-251710	19890927
JP 2758941	B2	19980528		
US 5136031	A	19920804	US 1990-474314	19900709
US 5270460	A	19931214	US 1992-893407	19920603
PRIORITY APPLN. INFO.:			GB 1988-21804	19880916
			GB 1988-22673	19880927
			EP 1989-309227	19890912
			US 1989-412904	19890926

AB Sucrose (I) or its derivs. is chlorinated by SOCl₂ (II) and a N base at a ratio of .apprx.1 molar equiv of II and .apprx.1 molar equiv of the base for ever molar equiv of free OH in a nonreactive moderately polar solvent. The process is particularly suitable for the prepn. of sucralose. Thus, a soln. of 5 g I 6-acetate (79.8% purity) in 7.89 mL pyridine was added dropwise at <-5.degree. over 30 min to 7.09 mL II in ClCH₂CH₂Cl and the mixt. was allowed to warm to ambient temp., refluxed 12 h, and then concd. to half vol. The conc. was added to a cold mixt. of 20 mL NH₃ and 20 mL MeOH and heated 45 min at 45.degree. to give 72% sucralose.

IT 56038-13-2P, Sucralose

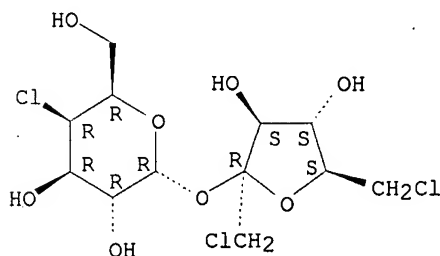
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, by chlorination of sucrose esters with thionyl chloride)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:22207 HCAPLUS

DOCUMENT NUMBER: 108:22207

TITLE: Preparation of 1,6-dichloro-1,6-dideoxyfructofuranosyl-4-chloro-4-deoxygalactopyranoside as a sweetening agent

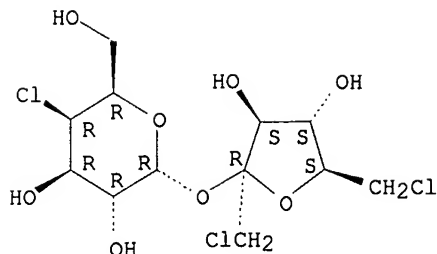
INVENTOR(S): Tully, William; Vernon, Nicholas M.; Walsh, Peter A.

PATENT ASSIGNEE(S): McNeilab, Inc., USA

SOURCE: Eur. Pat. Appl., 6 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

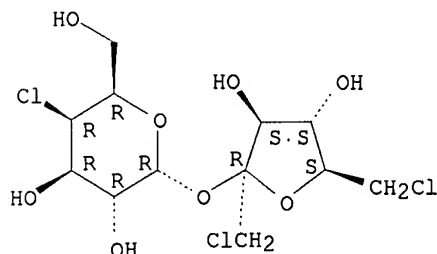
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 220907	A2	19870506	EP 1986-308120	19861020
EP 220907	A3	19881207		
EP 220907	B1	19930120		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE.				
FI 8604237	A	19870422	FI 1986-4237	19861020
FI 83783	B	19910515		
FI 83783	C	19910826		
DK 8605032	A	19870422	DK 1986-5032	19861020
NO 8604190	A	19870422	NO 1986-4190	19861020
NO 167033	B	19910617		
NO 167033	C	19910925		
AU 8664214	A1	19870430	AU 1986-64214	19861020
AU 593293	B2	19900208		
GB 2182038	A1	19870507	GB 1986-25107	19861020
GB 2182038	B2	19890920		
JP 62155289	A2	19870710	JP 1986-247656	19861020
JP 08030074	B4	19960327		
ZA 8607949	A	19880525	ZA 1986-7949	19861020
US 4801700	A	19890131	US 1986-921285	19861020
CA 1273918	A1	19900911	CA 1986-520914	19861020
IL 80371	A1	19901223	IL 1986-80371	19861020
SU 1771476	A3	19921023	SU 1986-4028397	19861020
AT 84791	E	19930215	AT 1986-308120	19861020
ES 2044837	T3	19940116	ES 1986-308120	19861020
PRIORITY APPLN. INFO.:			GB 1985-25953	19851021
			EP 1986-308120	19861020
AB	The title compd. (I, sucralose), a known sweetening agent, was prep'd. in an improved process comprising 5 steps: 1) simultaneous tritylation and acetylation of sucrose with Ph ₃ CCl in Ac ₂ O to give 1',6,6'-tri-O-tritylsucrose pentaacetate; 2) detritylation, e.g., with HCl and HOAc in CH ₂ Cl ₂ , to give 2,3,3',4,4'-penta-O-acetylsucrose; 3) isomerization (acetyl migration) in an inert, nonaq. solvent at 30-60.degree. using a weak base catalyst, preferably Me ₃ CNH ₂ , to give 2,3,3',4',6-penta-O-acetylsucrose; 4) chlorination, e.g., with SOCl ₂ and Ph ₃ PO in (ClCH ₂) ₂ , to give the 1',4,6'-trichloro-1',4,6'-trideoxy deriv.; and 5) deacetylation with MeONa in MeOH to give I. The isomerization and chlorination may be combined in a 1-pot process by choice of a solvent suitable to both reactions and use of a base catalyst which can be removed by distn.			
IT	56038-13-2P, Sucralose			
	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as sweetening agent)			
RN	56038-13-2 HCAPLUS			
CN	.alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)			

Absolute stereochemistry.



L11 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1979:104227 HCAPLUS
 DOCUMENT NUMBER: 90:104227
 TITLE: Semipreparative high-pressure liquid chromatography of synthetic carbohydrates
 AUTHOR(S): Wingard, Robert E., Jr.; Ng, Steve; Dale, James A.; Wang, Patricia C.
 CORPORATE SOURCE: Chem. Synth. Lab., Dynapol, Palo Alto, CA, USA
 SOURCE: Journal of Liquid Chromatography (1978), 1(6), 775-82
 CODEN: JLCHD8; ISSN: 0148-3919
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A rapid and effective method utilizing a 30 cm .times. 7.8 mm i.d. column packed with Waters Assocs. carbohydrate anal. packing in conjunction with isocratic water-acetonitrile elution and refractive index detection was developed for the purifn. of hundred-mg quantities of water-sol. synthetic carbohydrates. The generality of this method is illustrated by its application to 13 sucrose derivs. and 1 deriv. each of D-fructose and .alpha.,.alpha.-trehalose.
 IT 56038-13-2P 69414-04-6P
 RL: PUR (Purification or recovery); PREP (Preparation)
 (purifn. of, by semipreparative high-pressure liq. chromatog.)
 RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

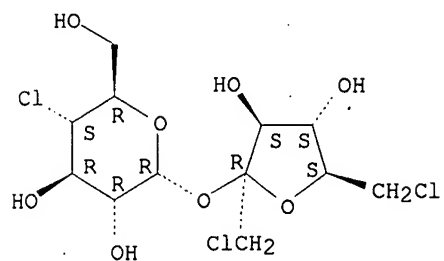


RN 69414-04-6 HCAPLUS
 CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Krishnan 10/092,715

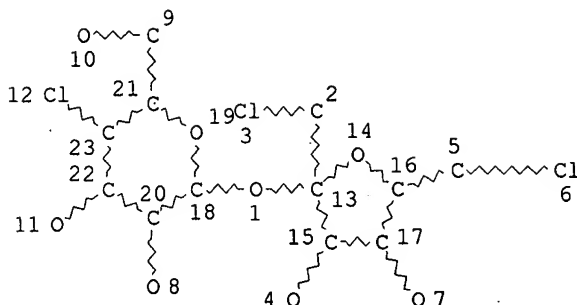
May 7, 2003

Absolute stereochemistry. Rotation (+).



=> d que
L2

STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L4 15 SEA FILE=REGISTRY FAM FUL L2
L5 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L4(L) PUR/RL

** Most highly relevant hits.*

Focused on the purification of sucralose or derivative.

Purification

=> d ibib abs hitstr 15 1-3

L5 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS
*
ACCESSION NUMBER: 2002:391728 HCAPLUS
DOCUMENT NUMBER: 136:369947
TITLE: Improved sucralose composition and process for its preparation
INVENTOR(S): El Kabbani, Fiesal; Catani, Steven J.; Heiss, Christian; Navia, Juan; Brohmi, Amal
PATENT ASSIGNEE(S): McNeil-PPC, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

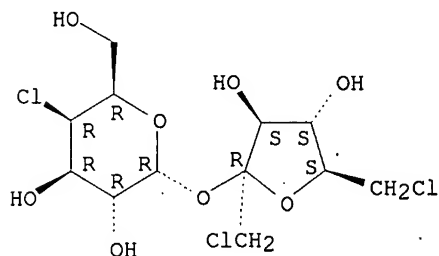
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002040495	A2	20020523	WO 2001-US43491	20011116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				

Krishnan 10/092,715

May 7, 2003

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2002026918 A5 20020527 AU 2002-26918 20011116
 US 2002120134 A1 20020829 US 2001-991123 20011116
 PRIORITY APPLN. INFO.: US 2000-249782P P 20001117
 WO 2001-US43491 W 20011116
 AB A process for the crystn. of sucralose from an aq. soln. comprising
 controlling the pH of said aq. soln. so as to maintain the pH in the range
 of from about 5.5 to about 8.5 during the formation of sucralose crystals.
 IT 56038-13-2P, Sucralose
 RL: IMF (Industrial manufacture); PUR (Purification or recovery)
 ; PREP (Preparation)
 (improved sucralose compn. and crystn. process for its prepn.)
 RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-
 fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS
 *
 ACCESSION NUMBER: 1996:229103 HCAPLUS
 DOCUMENT NUMBER: 124:343978
 TITLE: Production of sucralose without intermediate isolation
 of crystalline sucralose-6-ester
 INVENTOR(S): Navia, Juan L.; Walkup, Robert E.; Vernon, Nicholas
 M.; Neiditch, David S.
 PATENT ASSIGNEE(S): McNeil-PPC, Inc., USA
 SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 323,954,
 abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5498709	A	19960312	US 1995-448710	19950524
AU 9534201	A1	19960502	AU 1995-34201	19951011
AU 707557	B2	19990715		
IL 115562	A1	20001121	IL 1995-115562	19951011
CA 2160641	AA	19960418	CA 1995-2160641	19951016
FI 9504908	A	19960418	FI 1995-4908	19951016
NO 9504111	A	19960418	NO 1995-4111	19951016

EP 708110	A2	19960424	EP 1995-307329	19951016
EP 708110	A3	19960807		
EP 708110	B1	20010314		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

JP 08208679	A2	19960813	JP 1995-291620	19951016
ZA 9508724	A	19970416	ZA 1995-8724	19951016
BR 9504423	A	19970527	BR 1995-4423	19951016
RU 2155769	C2	20000910	RU 1995-118102	19951016
AT 199723	E	20010315	AT 1995-307329	19951016
ES 2157304	T3	20010816	ES 1995-307329	19951016

PRIORITY APPLN. INFO.:

US 1994-323954 B2 19941017

US 1995-448710 A 19950524

OTHER SOURCE(S): CASREACT 124:343978

AB A process is claimed for producing sucralose from a feed mixt. of (a) 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose, (b) salt including alkali metal or alk. earth metal chloride, (c) water, and (d) other chlorinated sucrose byproducts, in a reaction medium comprising a tertiary amide, wherein said process comprises: (i) deacylating the 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose by raising the pH of the aq. soln. of (a), (b), (c) and (d) to about 11 (±.1) at a temp. and for a period of time sufficient to effect said deacylation, to produce an aq. soln. comprising sucralose, salt including alkali metal or alk. earth metal chloride, and other chlorinated sucrose byproducts, in a reaction medium comprising a tertiary amide; (ii) removing said tertiary amide; and (iii) recovering sucralose from the product of step (ii). A soln. of crude sucrose-6-acetate in DMF (1.447 Kg) contg. 416.94 g (1.084 mol) sucrose-6-acetate was dild. with 2.51 kg. fresh DMF, cooled to -2.degree., and stirred vigorously while phosgene (1.125 Kg, 99%, 11.26 mol) was added at a rate of 5.4 to 6.7 g/min. The reaction mixt. was allowed to stir at ambient temp. for 30 min, then heated to 115.degree. over a 2-3 h period, then held at 115.degree. ±. 1.degree. for 1.75 h, then cooled to 35.degree. over 30 min; the final mass, 4.34 kg, was carried on to the dual stream caustic quench with NaOH/DMF/water, affording approx. 9 kg of quenched mixt. contg. 2 wt. % 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose-6-acetate (TGS-6-Ac). DMF and tarry, polymeric impurities were removed by steam stripping; for every 9 kg batch of feed, approx. 13 kg of steam-stripped bottoms were produced with a TGS-6-Ac concn. of about 1.5%-wt.; quenched feed contg. 1.8% TGS-6-Ac, 8.5% salts, 54.6% water, and 30.4% DMF, was stripped to produce bottoms contg. 1.6% TGS-6-Ac, 9.8% salts, 84.9% water, and 0.1% DMF residual (99.6% removal of DMF). The crude brine soln. of TGS-6-Ac (15.4 kg) was subjected to deacetylation by raising the pH of the soln. to 11.5 with 50% wt./wt. NaOH; after deacetylation, the soln. was neutralized with concd. HCl. Sucralose was isolated by counter-current extn. with Et acetate and crystn. from Et acetate (providing 33.5 g sucralose) or water (20.2 g sucralose).

IT 56038-13-2P, Sucralose

RL: IMF (Industrial manufacture); PUR (Purification or recovery)

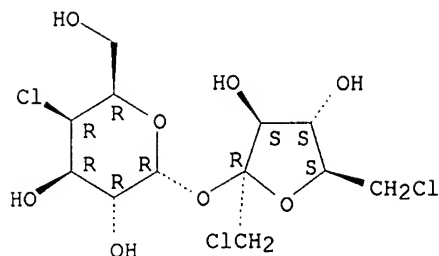
; SPN (Synthetic preparation); PREP (Preparation)

(prodn. of sucralose without intermediate isolation of cryst. sucralose-6-ester)

RN 56038-13-2 HCAPLUS

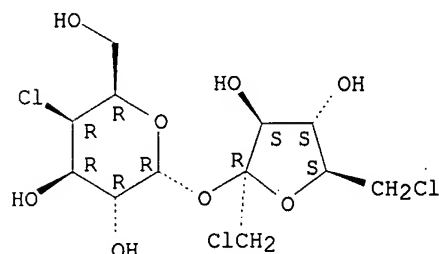
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



* L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1979:104227 HCAPLUS
 DOCUMENT NUMBER: 90:104227
 TITLE: Semipreparative high-pressure liquid chromatography of synthetic carbohydrates
 AUTHOR(S): Wingard, Robert E., Jr.; Ng, Steve; Dale, James A.; Wang, Patricia C.
 CORPORATE SOURCE: Chem. Synth. Lab., Dynapol, Palo Alto, CA, USA
 SOURCE: Journal of Liquid Chromatography (1978), 1(6), 775-82
 CODEN: JLCHD8; ISSN: 0148-3919
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A rapid and effective method utilizing a 30 cm .times. 7.8 mm i.d. column packed with Waters Assocs. carbohydrate anal. packing in conjunction with isocratic water-acetonitrile elution and refractive index detection was developed for the purifn. of hundred-mg quantities of water-sol. synthetic carbohydrates. The generality of this method is illustrated by its application to 13 sucrose derivs. and 1 deriv. each of D-fructose and .alpha.,.alpha.-trehalose.
 IT 56038-13-2P 69414-04-6P
 RL: PUR (Purification or recovery); PREP (Preparation)
 (purifn. of, by semipreparative high-pressure liq. chromatog.)
 RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

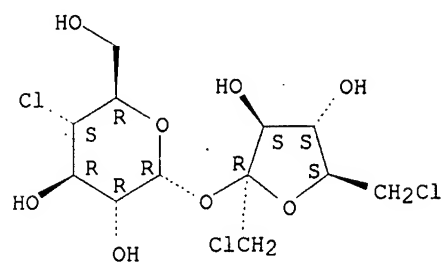


RN 69414-04-6 HCAPLUS
 CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Krishnan 10/092,715

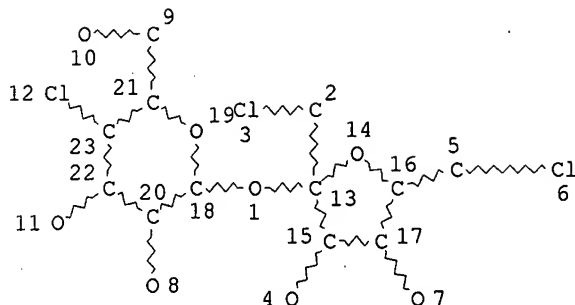
May 7, 2003

Absolute stereochemistry. Rotation (+).



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STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L4 15 SEA FILE=REGISTRY FAM FUL L2
L17 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L4 OR SUCRALOSE) AND
EXTRACTION+NT/CT

=> d ibib abs hitind hitstr 1-6

L17 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:964107 HCAPLUS
DOCUMENT NUMBER: 138:24019
TITLE: Taste modifiers comprising a chlorogenic acid
INVENTOR(S): Chien, Mingijen; Haeusler, Alex; Van Leersum, Hans
PATENT ASSIGNEE(S): Givaudan SA, Switz.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100192	A1	20021219	WO 2002-CH315	20020612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 2003003212 A1 20030102 US 2001-880420 20010613
 PRIORITY APPLN. INFO.: US 2001-880420 A 20010613

AB To a consumable comprising an ingredient or ingredients that cause an off-taste in the consumable is added chlorogenic acid in a concn. sufficient to mask or modify the off-taste. The chlorogenic acid may be supplied as an ext. from a botanical source obtained by extn. at 30-80.degree.C with water and/or a polar org. solvent. The method of making an off-taste by addn. of a chlorogenic acid to a consumable is also claimed.

IC ICM A23L001-221
 ICS A23L001-226; A61K035-78; A61K031-215

CC 17-6 (Food and Feed Chemistry)
 Section cross-reference(s): 11, 63

IT Alcoholic beverages
 Bakery products
 Beverages
 Cocoa products
 Coffee products
 Confectionery
 Dairy products
 Drugs
 Extraction
 Food additives
 Meat
 Meat substitutes
 Milk substitutes
 Solvent extraction
 Sweetening agents
 Tea products
 Tobacco products
 (taste modifiers comprising chlorogenic acid)

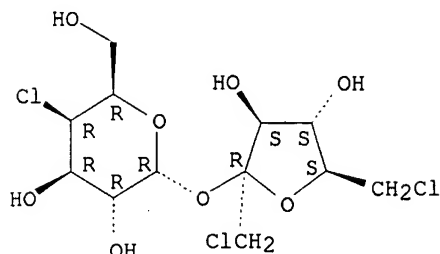
IT 81-07-2, Saccharin 81-07-2D, Saccharin, salts 87-99-0, Xylitol 100-88-9, Cyclohexylsulfamic acid 100-88-9D, Cyclamate, derivs. 327-97-9D, 3-O-Caffeoylquinic acid, derivs. 905-99-7, 4-O-Caffeoylquinic acid 906-33-2, 5-O-Caffeoylquinic acid 1083-30-3D, Dihydrochalcone, derivs. 1899-29-2, 3-O-Feruloylquinic acid 1899-30-5, 3-p-Coumaroylquinic acid 2450-53-5, 3,5-Dicaffeoylquinic acid 2613-86-7, 4-O-Feruloylquinic acid 14534-61-3, 3,4-Dicaffeoylquinic acid 22839-47-0, Aspartame 22839-47-0D, Aspartame, salts 32451-86-8, 5-p-Coumaroylquinic acid 40242-06-6, 5-O-Feruloylquinic acid 53539-37-0, 4-p-Coumaroylquinic acid 55589-62-3, Acesulfame potassium 56038-13-2, Sucralose 57378-72-0, 4,5-Dicaffeoylquinic acid 57817-89-7D, Stevioside, derivs. 80863-62-3, Alitame 125132-81-2 165450-17-9, Neotame 478156-24-0 478156-25-1
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (taste modifiers comprising chlorogenic acid)

IT 56038-13-2, Sucralose
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (taste modifiers comprising chlorogenic acid)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:951562 HCAPLUS
 DOCUMENT NUMBER: 138:136749
 TITLE: Parametrization Strategy for the MolFESD Concept:
 Quantitative Surface Representation of Local
 Hydrophobicity
 AUTHOR(S): Jaeger, Robert; Kast, Stefan M.; Brickmann, Juergen
 CORPORATE SOURCE: Institut fuer Physikalische Chemie, Technische
 Universitaet Darmstadt, Darmstadt, 64287, Germany
 SOURCE: Journal of Chemical Information and Computer Sciences
 (2003), 43(1), 237-247
 CODEN: JCISD8; ISSN: 0095-2338
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The authors derive a new model for the established concept of the mol. free energy surface d. (MolFESD) yielding a more rigorous representation of local surface contributions to the overall hydrophobicity of a mol. The model parametrization makes efficient use of both local and global information about solvation thermodyn., as formulated earlier for the problem of predicting free energies of hydration. The free energy of transfer is sepd. into an interaction contribution and a term related to the cavity formation. Interaction and cavity components are obtained from the statistical three-dimensional (3D) free energy d. and a linear combination of surface and vol. terms, resp. An appropriate mol. interaction field generated by the program Grid is used as an approx. representation of the interaction part of the 3-dimensional free energy d. The authors further compress the 3-dimensional d. by a linear combination of localized surface functions allowing for the derivation of local hydrophobic contributions as a free energy surface d. For a set of 400 compds. model yields significant correlation ($R^2 = 0.95$, $\sigma = 0.57$) between exptl. and calcd. log P values. The final model is applied to establish a correlation between partial free energies of transfer for sucrose derivs. and their relative sweetness, as studied earlier in the group of the authors. The authors find considerable improvement regarding the root-mean-square error of the regression thus validating the presented approach.

CC 22-2 (Physical Organic Chemistry)
 Section cross-reference(s): 6, 33, 68, 69

IT Partition

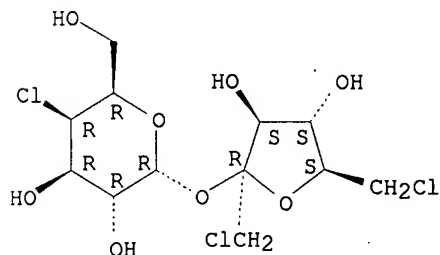
(octanol/water; quant. surface representation of local hydrophobicity and parametrization strategy for MolFESD concept)

IT 57-50-1, Sucrose, properties 50270-99-0 55832-24-1 **56038-13-2**
 56038-27-8 61854-83-9, 1',6'-Dichlorosucrose 64644-62-8,
 1'-Chlorosucrose 64644-65-1 82950-43-4 86172-15-8 86172-21-6
 86172-29-4 86172-31-8 86172-32-9 86172-45-4 86172-47-6
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (sweetness and transfer free energy vs. partition coeff.; quant.
 surface representation of local hydrophobicity and parametrization
 strategy for MolFESD concept)

IT **56038-13-2**
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (sweetness and transfer free energy vs. partition coeff.; quant.
 surface representation of local hydrophobicity and parametrization
 strategy for MolFESD concept)

RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-
 fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:888451 HCAPLUS
 DOCUMENT NUMBER: 137:369113
 TITLE: Anticariogenic confectionery compositions providing
 enhanced oral care benefits
 INVENTOR(S): Lawlor, Thomas Mark; Ji, Ning; Zhu, Long
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
 SOURCE: PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002091848	A1	20021121	WO 2002-US15267	20020514
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES,				

FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
 SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM,
 AZ, BY, KG, KZ
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003049303 A1 20030313 US 2002-146247 20020515

PRIORITY APPLN. INFO.: US 2001-291177P P 20010515

AB A confectionery compn. comprises: (i) an effective amt. of a natural plant ext. selected from tea, gold thread, honeysuckle, magnolia exts. and mixts. thereof; (ii) an oral care active selected from the group consisting of anti-calculus agents; anti-plaque agents; fluoride ion source; desensitizing agents; oral malodor control agents; H2 antagonists; and mixts. thereof; (iii) less than about 10% water; and (iv) a suitable confectionery carrier material. The present invention relates to stable portable oral care confectionery compns. which provide enhanced oral malodor benefits in combination with one or more further oral care benefits. Thus, a hardboiled candy comprises sugar 56.99, glucose 38.0, water 3.0, gold thread ext. 0.5, sodium polyphosphate 5.0, and flavor 1.0%.

IC ICM A23G003-00

ICS A61K007-26

CC 17-6 (Food and Feed Chemistry)

IT Confectionery

Flavoring materials

Solvent extraction

(anticariogenic confectionery compns. providing enhanced oral care benefits)

IT 50-70-4, Sorbitol, biological studies 69-65-8, Mannitol 585-88-6,

Maltitol 22839-47-0, Aspartame **56038-13-2, Sucralose**

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(noncariogenic sweetener; anticariogenic confectionery compns. providing enhanced oral care benefits)

IT **56038-13-2, Sucralose**

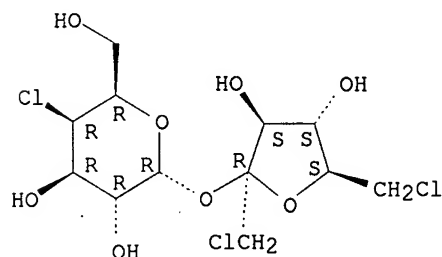
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(noncariogenic sweetener; anticariogenic confectionery compns. providing enhanced oral care benefits)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:161084 HCAPLUS

DOCUMENT NUMBER: 132:193511

TITLE: Extraction, fractionation, and application of novel inulin fractions for use in food

INVENTOR(S): Silver, Barnard Stewart

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011967	A1	20000309	WO 1999-US19422	19990825
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2341536	AA	20000309	CA 1999-2341536	19990825
AU 9955853	A1	20000321	AU 1999-55853	19990825
BR 9913658	A	20010605	BR 1999-13658	19990825
EP 1107671	A1	20010620	EP 1999-942487	19990825
EP 1107671	B1	20030423		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002523564	T2	20020730	JP 2000-567098	19990825
ZA 2001001586	A	20020527	ZA 2001-1586	20010226
PRIORITY APPLN. INFO.:				
			US 1998-98195P	P 19980827
			US 1998-104091P	P 19981013
			WO 1999-US19422	W 19990825
AB	Novel inulin fractions with reduced hygroscopicity and improved water soly. and(or) water miscibility at ambient temps. comprise at least two different polysaccharides each having different mol. wts. in the range from about 340 to about 2288. The inulin fraction contains less than about 0.75% by wt. of monosaccharides and less than about 25% by wt. of polysaccharides with mol. wts. above 2288. Thus, chicory root exts. after pasteurization may be fractionated by using centrifugal separators, decantation, and nanofiltration.			
IC	ICM A23L001-236			
CC	17-6 (Food and Feed Chemistry)			
IT	Extraction Fractionation (of novel inulin fractions for use in food)			
IT	50-70-4, D-Glucitol, biological studies 69-65-8, Mannitol 81-07-2, Saccharin 87-99-0, Xylitol 585-88-6, Maltitol 22839-47-0, Aspartame 56038-13-2, Sucralose			

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(extn., fractionation, and application of novel inulin fractions for
use in food)

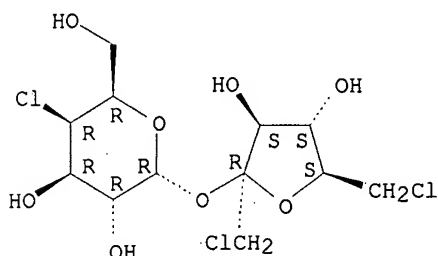
IT 56038-13-2, **Sucralose**

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(extn., fractionation, and application of novel inulin fractions for
use in food)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-
fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:597422 HCAPLUS

DOCUMENT NUMBER: 131:198845

TITLE: Taste agent from Saccharum officinarum, process for
preparing it, products containing it

INVENTOR(S): Ramirez, Carlos; Javes, Michael F.; Kiwala, Jacob;
Grainger, Brian; Hawn, Regina D.; Kleinhenz, Robert;
Rossy, Phillip A.; Davidson, Richard H.; Bolen, Paul
L.; Warder, Ira T.; Pittet, Alan Owen; Miller, Kevin
P.; Schulman, Marvin; Muralidhara, Ranya; Kinlin,
William J.

PATENT ASSIGNEE(S): International Flavors + Fragrances Inc., USA

SOURCE: Eur. Pat. Appl., 111 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 941671	A2	19990915	EP 1999-301867	19990311
EP 941671	A3	20010801		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6245376	B1	20010612	US 1999-441366	19991117
PRIORITY APPLN. INFO.:				
			US 1998-38945	A 19980312
			US 1998-208463	A 19981210
			US 1999-231020	A 19990114

US 1999-305484 A3 19990506

OTHER SOURCE(S): MARPAT 131:198845

AB Described is a process for producing one or more flavorants including food, chewing gum, beverage (e.g., coffee, milk, cocoa and citrus/whey protein), oral care compn. (e.g., toothpaste and mouthwash) and tobacco additives from *Saccharum officinarum* leaves (sugarcane leaves) by means of carrying out one or more phys. sepn. unit operations on such leaves, macerates thereof or mixts. of leaves and macerates thereof whereby one or more natural food, chewing gum, beverage, oral care compn. or tobacco additives is sepd. and isolated from the remainder of the leaves, macerates thereof or mixts. of leaves and macerates thereof. Such unit operations include pressurization using hydraulic press means, steam distn., fractional distn., supercrit. carbon dioxide extn., volatile solvent extn. and/or charcoal column sepn. means. Also described is app. for carrying out such processes as well as the products produced using such processes and organoleptic uses of such products. Also described are compns. comprising (a) such flavorants in admixt. with (b) an eatable having a bitter and/or metallic taste. The eatable is any ingested material taken by mammals, such as foodstuffs, beverages, chewing gums, non-calorie food components or medicines including bitter chocolate or a drug such as ibuprofen. Also described are processes for augmenting, enhancing or imparting flavors in or to foodstuffs, chewing gums and beverages by adding thereto the aforementioned flavorant taken alone or combined with a solid water-sol. carrier (as prepd. using spray drying or freeze drying process steps) and other additives, including nutritional supplements such as calcium glycerophosphate. Also described are smoking tobacco compns. and articles comprising smoking tobacco and intimately admixed therewith an aroma or taste augmenting, enhancing or imparting quantity and concn. of one or more flavorants (tobacco additive or tobacco article adjunct) (produced from *S. officinarum* leaves) by means of carrying out the above-mentioned process.

IC ICM A23L001-221

ICS A23L002-56; A23G003-30; A23G001-00; A24B015-30; A61K007-16

CC 17-6 (Food and Feed Chemistry)

Section cross-reference(s): 48, 62

IT Beverages

Chewing gum

Cosmetics

Dentifrices

Drugs

Essences

Extraction apparatus

Flavor

Flavoring materials

Food additives

Freeze drying

Grapefruit juice

Health products

Milk preparations

Mouthwashes

Orange juice

Pervaporation

Pressure

Puddings

Solvent extraction

Soups

Sweetening agents

Temperature effects, biological
Tobacco products
Tomato juice
(flavoring agent from Saccharum officinarum, process for prepg. it and products contg. it)

IT **Extraction**
(supercrit.; flavoring agent from Saccharum officinarum, process for prepg. it and products contg. it)

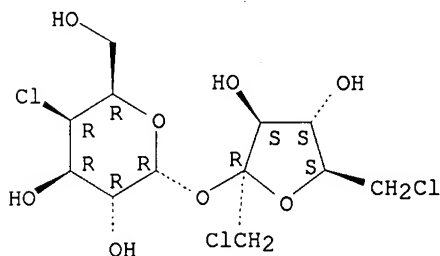
IT 81-07-2, Saccharin 811-97-2, 1,1,1,2-Tetrafluoroethane 22839-47-0, Aspartame 22839-47-0D, Aspartame, alkyl esters 27214-00-2, Calcium glycerophosphate **56038-13-2, Sucralose**
RL: BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(flavoring agent from Saccharum officinarum, process for prepg. it and products contg. it)

IT **56038-13-2, Sucralose**
RL: BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(flavoring agent from Saccharum officinarum, process for prepg. it and products contg. it)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L17 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1991:583592 HCAPLUS
DOCUMENT NUMBER: 115:183592
TITLE: Extraction of 1,3-diacyloxy-1,1,3,3-tetrahydrocarbyldistannoxanes from mixtures with sucrose 6-esters
INVENTOR(S): Vernon, Nicholas M.; Walkup, Robert E.
PATENT ASSIGNEE(S): Noramco, Inc., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5034551	A	19910723	US 1990-512690	19900423

IL 97891	A1	19950731	IL 1991-97891	19910417
AU 9175377	A1	19911024	AU 1991-75377	19910419
AU 631062	B2	19921112		
JP 07097387	A2	19950411	JP 1991-113708	19910419
JP 2882548	B2	19990412		
CA 2040933	AA	19911024	CA 1991-2040933	19910422
CA 2040933	C	20020129		
FI 9101941	A	19911024	FI 1991-1941	19910422
FI 97886	B	19961129		
FI 97886	C	19970310		
NO 9101590	A	19911024	NO 1991-1590	19910422
NO 180009	B	19961021		
NO 180009	C	19970129		
EP 455390	A2	19911106	EP 1991-303565	19910422
EP 455390	A3	19920722		
EP 455390	B1	19950920		

R: BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE

ZA 9102995	A	19921230	ZA 1991-2995	19910422
RU 2036197	C1	19950527	RU 1991-4895127	19910422
ES 2080895	T3	19960216	ES 1991-303565	19910422

PRIORITY APPLN. INFO.:

US 1990-512690 A 19900423

AB 1,3-Diacyloxy-1,1,3,3-tetra(hydrocarbyl)distannoxanes were sepd. from their mixts. with sucrose 6-esters and polar aprotic solvents by addn. of a small amt. of H₂O and extn. using a H₂O-immiscible org. solvent. Thus, 1,3-di(6-O-sucrose)-1,1,3,3-tetrabutyl-distannoxane (prepn. given) in DMF was stirred overnight with (PhCO)₂O; the mixt. was agitated with cyclohexane and H₂O and the cyclohexane phase was concd. to give 1,1,3,3-tetrabutyl-1,3-dibenzoyloxydistannoxane while concn. of the DMF phase gave crude sucrose-6-benzoate contg. 0.9% wt./wt. Sn.

IC C07H007-22

NCL 556089000

CC 29-8 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 17, 33

IT **Extraction**

(of diacyloxytetrahydrocarbyl-distannoxanes from mixts. with sucrose esters, nonpolar solvents for)

IT 105066-21-5P, **Sucralose** 6-acetate 127924-17-8P, **Sucralose**-6-benzoateRL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conversion of, to **sucralose**)IT **56038-13-2P**RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)IT **56038-13-2P**RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

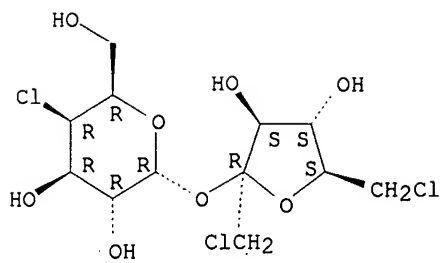
RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

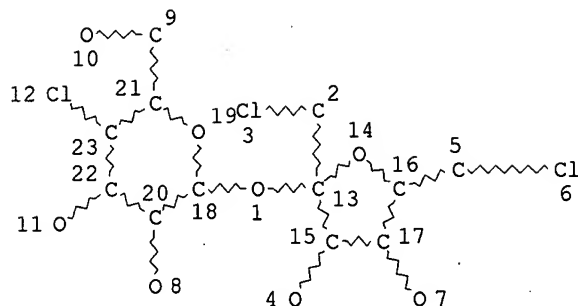
Krishnan 10/092,715

May 7, 2003



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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L4	15	SEA FILE=REGISTRY FAM FUL L2	
L5	3	SEA FILE=HCAPLUS ABB=ON	PLU=ON L4(L) PUR/RL
L6	95	SEA FILE=HCAPLUS ABB=ON	PLU=ON CATANI S?/AU
L7	11	SEA FILE=HCAPLUS ABB=ON	PLU=ON VERNON N?/AU
L8	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON NEIDITCH D?/AU
L9	585	SEA FILE=HCAPLUS ABB=ON	PLU=ON WILEY J?/AU
L10	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON MICINSKI E?/AU
L11	8	SEA FILE=HCAPLUS ABB=ON	PLU=ON L4 AND (L5 OR L6 OR L7 OR L8 OR L9 OR L10)
L17	6	SEA FILE=HCAPLUS ABB=ON	PLU=ON (L4 OR SUCRALOSE) AND EXTRACTION+NT/CT
L22	48	SEA FILE=HCAPLUS ABB=ON	PLU=ON L4(L) PREP/RL
L23	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON L22 AND (PUR/RL OR PURIF? OR IMPURIT? OR EXTRACTION)
L24	3	SEA FILE=HCAPLUS ABB=ON	PLU=ON L23 NOT (L5 OR L11 OR L17)

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L24 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:588361 HCAPLUS
 DOCUMENT NUMBER: 137:319728
 TITLE: Application of chromatography in the preparation of trichlorogalactosucrose
 AUTHOR(S): Liu, Yuhong; Wang, Fei; Wu, Aiping; Dong, Yinmao
 CORPORATE SOURCE: Beijing Technology and Business University, Beijing, 100037, Peop. Rep. China
 SOURCE: Lihua Jianyan, Huaxue Fence (2002), 38(4), 180-181
 CODEN: LJHFE2; ISSN: 1001-4020
 PUBLISHER: Jixie Gongyebu Shanghai Cailiao Yanjiuso
 DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB A mixt. contg. the intermediate 2,3,6,3',4'-penta-O-acetylsucrose (PAS) obtained in the synthesis of trichlorogalactosucrose (TGS), was studied by thin layer and column chromatog. The compn. and vol. ratio of eluants were tested and optimized. PAS was effectively sepd. by a solvent mixt. of chloroform and acetone in a ratio of 2:1 by vol. Another **impurity** in the mixt. was also sepd., which was characterized by IR anal. as triphenylmethanol. This finding was considered to be quite important for the synthesis of TGS.

CC 80-6 (Organic Analytical Chemistry)

IT 56038-13-2P, Sucralose

RL: PNU (Preparation, unclassified); **PREP (Preparation)**
(column chromatog. and TLC in anal. of mixt. contg. pentaacetylsucrose intermediate in synthesis of Sucralose)

IT 76-84-6, Triphenylmethanol

RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(**impurity**; column chromatog. and TLC in anal. of mixt. contg. pentaacetylsucrose intermediate in synthesis of Sucralose)

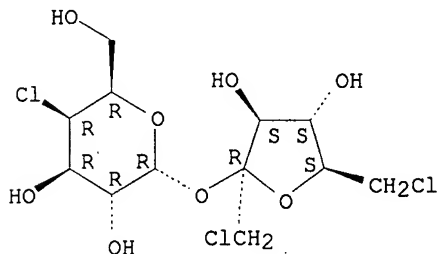
IT 56038-13-2P, Sucralose

RL: PNU (Preparation, unclassified); **PREP (Preparation)**
(column chromatog. and TLC in anal. of mixt. contg. pentaacetylsucrose intermediate in synthesis of Sucralose)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1992:104407 HCAPLUS

DOCUMENT NUMBER: 116:104407

TITLE: Biological method for protection of 6-position of
sucrose and its use in synthesis of disaccharide
high-intensity sweetener

AUTHOR(S): Jones, Joan D.; Hacking, Andrew J.; Cheetham, Peter S.
J.

CORPORATE SOURCE: Tate and Lyle Res. and Technol., Reading, RG6 2BX, UK
SOURCE: Biotechnology and Bioengineering (1992), 39(2), 203-10
CODEN: BIBIAU; ISSN: 0006-3592

DOCUMENT TYPE: Journal

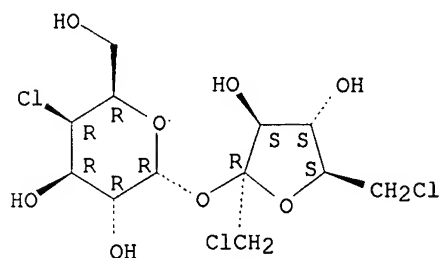
LANGUAGE: English

AB A general method for protecting the 6 primary hydroxyl position of sucrose is described. It involves the prodn. of glucose-6-acetate by fermn. of glucose using a strain of *Bacillus megaterium* followed by conversion to

sucrose-6-acetate as a kinetic product using a specifically selected fructosyl transferase produced by a newly isolated strain of *B. subtilis*. The sucrose-6-acetate was more lipophilic than expected, and this property aided its **purifn.** by chromatog. Pure sucrose-6-acetate may then be chlorinated and subsequently deacetylated to give the high-intensity sweetener 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose (sucralose) in high yields. This process involves fewer steps than are required for chem. synthesis using trityl chloride and acetic anhydride. Related intensely sweet mol. which were synthesized by similar methods included 4,1',6'-trichloro-4,1',6'-trideoxy L-arabinosucrose, and 4,4',6'-trichloro-4,6,1',6'-tetraideoxygalactosucrose. They were obtained from xylose and 6-deoxyglucose, resp., via the intermediates xylsucrose and 6-deoxysucrose, formed by the reaction of the fructosyl transferase on the monosaccharide acceptors.

CC 16-2 (Fermentation and Bioindustrial Chemistry)
 IT 56038-13-2P, Sucralose 90539-07-4P 139079-23-5P
 RL: PREP (Preparation)
 (prepn. of, enzymic, protection of 6-position of sucrose in)
 IT 56038-13-2P, Sucralose
 RL: PREP (Preparation)
 (prepn. of, enzymic, protection of 6-position of sucrose in)
 RN 56038-13-2 HCAPLUS
 CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1988:510843 HCAPLUS
 DOCUMENT NUMBER: 109:110843
 TITLE: Process for the preparation of penta-O-acetyl sucrose by selective catalytic detritylation of 1',6,6'-tri-O-tritylpenta-O-acetylsucrose
 INVENTOR(S): Sankey, George Henry; Homer, Nigel John
 PATENT ASSIGNEE(S): Tate and Lyle PLC, UK
 SOURCE: Eur. Pat. Appl., 5 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 260978	A2	19880323	EP 1987-308259	19870917
EP 260978	A3	19881214		
EP 260978	B1	19900816		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DK 8704870	A	19880318	DK 1987-4870	19870916
DK 169257	B1	19940926		
CA 1300132	A1	19920505	CA 1987-547019	19870916
GB 2195335	A1	19880407	GB 1987-21854	19870917
JP 63165395	A2	19880708	JP 1987-233625	19870917
JP 07078071	B4	19950823		
US 4920207	A	19900424	US 1987-98023	19870917
AT 55607	E	19900915	AT 1987-308259	19870917
PRIORITY APPLN. INFO.:			GB 1986-22342	19860917
			EP 1987-308259	19870917

OTHER SOURCE(S): CASREACT 109:110843

AB 2,3,3',4,4'-Penta-O-acetylsucrose (4-PAS, I), an intermediate in the manuf. of the sweetener sucralose (1',4,6'-trichloro-1',4,6'-trideoxy-galacto-sucrose, II), is prepd. by hydrogenolysis of 1',6,6'-tri-O-tritylpenta-O-acetylsucrose (TRISPA, III) in an inert solvent in the presence of a hydrogenolysis catalyst such as Pd/C and a catalytic amt. of HCl or an aralkyl chloride, preferably an arylmethyl chloride. The process provides I in good yield and purity under mild, virtually neutral, conditions, does not require esp. **purified** III, causes little inversion of III, and permits recovery and reuse of Ph₃CCl. To 10 g III (95.2% purity) in CH₂Cl₂ was added 0.125 g Ph₃CCl and the mixt. was hydrogenated at atm. pressure and room temp. over Pd/C to give 93.7% I, based on III purity. From the mother liquor was isolated 5.07 g Ph₃CH (88.5% theor.) which could be chlorinated for reuse. I is converted to 2,3,3',4',6'-penta-O-acetylsucrose (6-PAS) by acetyl migration, followed by chlorination with SO₂Cl₂ and deacetylation to give II.

IC ICM C07H013-04

CC 33-4 (Carbohydrates)

IT 56038-13-2P, Sucralose

RL: PREP (Preparation)

(manuf. of, catalytic detritylation of tri-O-tritylpenta-O-acetyl sucrose in)

IT 56038-13-2P, Sucralose

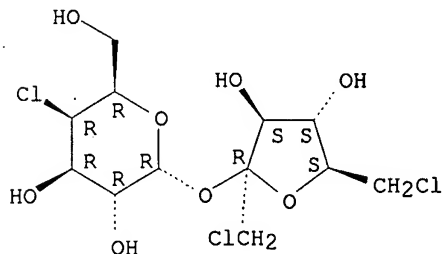
RL: PREP (Preparation)


(manuf. of, catalytic detritylation of tri-O-tritylpenta-O-acetyl sucrose in)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





Krishnan 10/092,715

May 7, 2003

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L19 1 SEA FILE=MEDLINE ABB=ON PLU=ON SUCRALOSE(2A)PURIF?

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L19 ANSWER 1 OF 1 MEDLINE

ACCESSION NUMBER: 2003096338 MEDLINE

DOCUMENT NUMBER: 22496035 PubMed ID: 12607927

TITLE: Determination of sucralose in foods by HPLC using pre-column derivatization.

AUTHOR: Nojiri Shuko; Nakazato Mitsuo; Kasuya Yoko; Takano Ichiro; Oishi Mitsuo; Yasuda Kazuo; Suzuki Sukeji

CORPORATE SOURCE: Tama Branch Laboratory, Tokyo Metropolitan Research Laboratory of Public Health: 3-16-25, Shibasaki-cho, Tachikawa, Tokyo 190-0023, Japan.

SOURCE: SHOKUHIN EISEIGAKU ZASSHI, (2002 Oct) 43 (5) 289-94. Journal code: 0142214. ISSN: 0015-6426.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Japanese

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200304

ENTRY DATE: Entered STN: 20030302

Last Updated on STN: 20030402

Entered Medline: 20030401

AB The development of a sensitive pre-column derivatization high-performance liquid chromatography (HPLC) method for determination of sucralose is reported. Sucralose is converted into a strongly ultraviolet (UV)-absorbing derivative, possessing strong absorption at 260 nm, by treatment with p-nitrobenzoyl chloride (PNBCl). Homogenized samples were dialyzed and washed with a Bond Elut ENV cartridge, then the eluate was evaporated to dryness and the residue was derivatized. Subsequently, the **sucralose** derivative was **purified** with hexane-ethyl acetate (9:1) in a silica cartridge, and then the sucralose derivative was eluted with acetone. HPLC was performed on a phenyl column, using acetonitrile-water (73:27) as a mobile phase with UV detection (260 nm). The calibration curve was linear in the range of 1 microgram/mL to 50 micrograms/mL of sucralose. The recoveries of sucralose from eight kinds of foods spiked at the levels of 0.20 and 0.05 g/kg of sucralose were more than 76.2% with SD values in the range from 0.90% to 4.31%. The quantitative limit of the developed method was 0.005 g/kg for sucralose in samples.

CT *Chromatography, High Pressure Liquid: MT, methods
English Abstract

*Food Analysis: MT, methods

*Sucrose: AA, analogs & derivatives

*Sucrose: AN, analysis

Sucrose: CH, chemistry

RN 56038-13-2 (trichlorosucrose); 57-50-1 (Sucrose)

Krishnan 10/092,715

May 7, 2003

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L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCRALOSE/CN
L31 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L1(L) SWEET? AND (BEVERAGE OR
CONSUMER(2A) PRODUCT)

=> d ibib abs hitind l31 25-31

L31 ANSWER 25 OF 45 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:652553 HCAPLUS
DOCUMENT NUMBER: 132:150711
TITLE: Functionality of sucralose in some Western food and
drink applications
AUTHOR(S): Lindley, Michael G.
CORPORATE SOURCE: LinTech, Reading Univ. Innovation Cent,
Whiteknights/Reading, RG6 6BX, UK
SOURCE: Foods & Food Ingredients Journal of Japan (1999), 182,
26-34
CODEN: FFIJER; ISSN: 0919-9772
PUBLISHER: FFI Janaru
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English/Japanese

AB A review with 10 refs. Sucralose, the new low calorie sweetener, was
first approved in Canada in 1991, and many other countries have now
followed suit. Consequently, sucralose is now used in many Western foods
and drinks. To be used successfully as a sugar substitute, any low
calorie sweetener must contribute certain key characteristics. It should
elicit a taste profile similar to that of sucrose and should be
sufficiently stable to ensure manufg. processes require no modification.
Sucralose has taste profile close to sucrose and is a very stable
sweetener. Sucralose is sol. in water and in alc., and it is not chem.
reactive. These features make it easy to incorporate into existing
manufg. processes. These characteristics of sucralose indicate that it
has great potential to function as an effective sweetener additive in a
wide range of food and drink products.

CC 17-0 (Food and Feed Chemistry)

IT **Beverages**

(sucralose taste profile, stability and compatibility with manufg.
practices and application as sweetener for drinks)

IT **56038-13-2, Sucralose**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); FFD (Food or feed use); PRP (Properties); BIOL
(Biological study); USES (Uses)

(taste profile, stability and compatibility with manufg. practices of
sucralose and applications as **sweetener** in Western food and
drink)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 26 OF 45 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:451165 HCAPLUS
DOCUMENT NUMBER: 131:72933
TITLE: Use of D-tagatose as synergizer and flavour enhancer
INVENTOR(S): Andersen, Henrik; Vigh, Mads L.
PATENT ASSIGNEE(S): MD Foods A.M.B.A., Den.
SOURCE: PCT Int. Appl., 31 pp.

Krishnan 10/092,715

May 7, 2003

DOCUMENT TYPE: CODEN: PIXXD2
LANGUAGE: Patent
PATENT INFORMATION: English

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9934689 A1		19990715	WO 1999-DK4	19990105
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1998-70480	19980105
AB	D-tagatose is used as an enhancer for sweetening and flavoring agents, esp. in beverages .			
IC	ICM A23L001-236 ICS A23L001-09			
CC	17-6 (Food and Feed Chemistry)			
ST	tagatose sweetener flavor enhancer beverage			
IT	Chocolate Chocolate Coffee products Tea products (beverages ; use of D-tagatose as enhancer for sweeteners and flavors)			
IT	Beverages (carbonated; use of D-tagatose as enhancer for sweeteners and flavors)			
IT	Beverages Beverages (chocolate drinks; use of D-tagatose as enhancer for sweeteners and flavors)			
IT	Beverages (cola, diet; use of D-tagatose as enhancer for sweeteners and flavors)			
IT	Beverages Flavoring materials Food additives Sweetening agents (use of D-tagatose as enhancer for sweeteners and flavors)			
IT	81-07-2, Saccharin 100-88-9, Cyclamate 1405-86-3 20702-77-6, Neohesperidin dihydrochalcone 22839-47-0, Aspartame 55589-62-3, Acesulfamepotassium 56038-13-2 , Sucralose 57817-89-7, Stevioside 58543-16-1, Rebaudioside A 80863-62-3, Alitame 88901-36-4, Mogroside V 165450-17-9, Neotame RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (use of D-tagatose as enhancer for sweeteners and flavors)			
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				
L31 ANSWER 27 OF 45 HCAPLUS COPYRIGHT 2003 ACS				
ACCESSION NUMBER: 1999:404813 HCAPLUS				
DOCUMENT NUMBER: 131:31305				
TITLE: Neotame sweetener for dairy products and dairy product substitutes				

INVENTOR(S): Gaughan, Wanda M.; Gerlat, Paula A.; Ziegler, Jeanette
G.; Walters, Gale C.; Logli, Lori; Corliss, Glenn;
Finley, John
PATENT ASSIGNEE(S): The Nutrasweet Company, USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930578	A1	19990624	WO 1998-US27176	19981217
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9919364	A1	19990705	AU 1999-19364	19981217
PRIORITY APPLN. INFO.:			US 1997-69952P	P 19971217
			WO 1998-US27176	W 19981217
AB	N-[N-(3,3-Dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (neotame) is used to sweeten dairy products, including milk (from various species and of various milk fat content), enzyme treated milk, filled milk, cream, creamers, cultured milk, milk concs., dry milk, fluid and dried whey, fluid and dry milk based desserts and beverages, and fluid and dry aerated desserts and toppings. The dairy products also include frozen cultured milk products, such as frozen yogurt, and frozen fluid dairy products, such as ice cream, ice milk, sherbet, custards and french ice cream, mellorine, novelties, and the like. Dairy analog products include soy milk, soy powder, caseinates, and non-dairy coffee whiteners, as well as frozen products such as sorbet and non-dairy novelties. Thus, an orange sherbet may be sweetened with 20 ppm neotame.			
IC	ICM A23L001-236			
CC	17-6 (Food and Feed Chemistry)			
IT	Beverages Cocoa products Cream Cream substitutes Dairy products Frozen desserts Gums and Mucilages Ice cream Milk Milk preparations Milk substitutes Puddings Stabilizing agents Sweetening agents Whey (neotame sweetener for dairy products and dairy product substitutes)			
IT	50-99-7, Glucose, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 81-07-2, Saccharin			

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100-88-9D, Cyclamate, derivs. 8013-17-0, Invert sugar 22839-47-0,
Aspartame 33665-90-6D, Acesulfame, salts 55589-62-3 56038-13-2
, Sucralose 80863-62-3, Alitame 165450-17-9, Neotame
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(neotame sweetener for dairy products and dairy product
substitutes)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE.FORMAT

L31 ANSWER 28 OF 45 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:404812 HCAPLUS

DOCUMENT NUMBER: 131:44013

TITLE: Neotame-based tabletop sweetener compositions

INVENTOR(S): Ponakala, Subbarao V.; Gerlat, Paula A.; Ziegler,
Jeanette G.; Jarrett, Tammy N.; Cheng, Judy

PATENT ASSIGNEE(S): The Nutrasweet Company, USA

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930577	A1	19990624	WO 1998-US26866	19981217
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9919248	A1	19990705	AU 1999-19248	19981217
PRIORITY APPLN. INFO.:			US 1997-69839P	P 19971217
			WO 1998-US26866	W 19981217
AB	The sweetener N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (neotame) may be used to provide some or all the sweetness of food products. The sweetener may also contain other sweeteners and agents to provide bulking. Thus, 1 g of a tabletop sweetener contg. 0.093% neotame and 99.907% Unidex (97% dextrose; 3% maltodextrin) is used to sweeten coffee.			
IC	ICM A23L001-236			
CC	17-6 (Food and Feed Chemistry)			
IT	Coffee products (beverages; neotame-based sweetener compns.)			
IT	50-70-4, Sorbitol, biological studies 50-99-7, Dextrose, biological studies 56-40-6, Glycine, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 61-90-5, L-Leucine, biological studies 63-42-3, Lactose 69-79-4, Maltose 81-07-2, Saccharin 100-88-9D, Cyclamate, derivs. 149-32-6, Erythritol 585-86-4, Lactitol 585-88-6, Maltitol 868-14-4, Cream of tartar, biological studies 1344-95-2, Calcium silicate 1405-86-3D, Glycyrrhizin, derivs. 7631-86-9, Silicon dioxide, biological studies 7758-87-4, Tricalcium phosphate 8013-17-0, Invert sugar 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, derivs., biological			

studies 9005-80-5, Inulin 9050-36-6, Maltodextrin 17598-81-1,
 Tagatose 20702-77-6, Neohesperidin dihydrochalcone 22839-47-0,
 Aspartame 55589-62-3 **56038-13-2**, Sucralose 64519-82-0,
 Isomalt 68424-04-4, Polydextrose 80863-62-3, Alitame 165450-17-9,
 Neotame

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
 (neotame-based **sweetener** compns.)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 29 OF 45 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:404811 HCAPLUS

DOCUMENT NUMBER: 131:44012

TITLE: Neotame-based sweeteners for **beverages**.

INVENTOR(S): Gerlat, Paula A.; Milovanovic, Susan; Ponakala,
 Subbarao V.; Ziegler, Jeanette G.; Sawyer, Harold A.;
 Walters, Gale C.

PATENT ASSIGNEE(S): The Nutrasweet Company, USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930576	A1	19990624	WO 1998-US26865	19981217
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9919247	A1	19990705	AU 1999-19247	19981217
PRIORITY APPLN. INFO.: US 1997-69848P P 19971217 WO 1998-US26865 W 19981217				
AB	N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (neotame) is used to sweeten beverages . The beverages have a clean sweetener taste profile with an extremely low level of sweetener usage. Thus, a cola beverage may be sweetened with 17 ppm neotame.			
IC	ICM A23L001-236			
CC	17-6 (Food and Feed Chemistry)			
ST	neotame beverage sweetener			
IT	Grapefruit juice (beverage ; neotame-based sweeteners for beverages)			
IT	Cereal (grain) (beverages based on; neotame-based sweeteners for beverages)			
IT	Tea products (beverages , herbal teas; neotame-based sweeteners for beverages)			
IT	Coffee products Tea products			

(beverages; neotame-based sweeteners for beverages)

IT **Beverages**
(carbonated; neotame-based sweeteners for beverages)

IT Coffee products
(coffee substitutes; neotame-based sweeteners for beverages)

IT **Beverages**
 cola; neotame-based sweeteners for beverages)

IT Fruit and vegetable juices
Fruit and vegetable juices
(cranberry; neotame-based sweeteners for beverages)

IT Stevia
(derivs.; neotame-based sweeteners for beverages)

IT Syrups (sweetening agents)
(hydrolyzed starch; neotame-based sweeteners for beverages)

IT Cranberry
Cranberry
Peach (Prunus persica)
Peach (Prunus persica)
(juice; neotame-based sweeteners for beverages)

IT **Beverages**
(lemonade; neotame-based sweeteners for beverages)

IT Fruit and vegetable juices
(lime juice, beverage; neotame-based sweeteners for beverages)

IT Alcoholic beverages
Apple juice
Beverages
Fruit and vegetable juices
Mineral waters
Orange juice
Sweetening agents
Wine
(neotame-based sweeteners for beverages)

IT Alditols
Thaumatin
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(neotame-based sweeteners for beverages)

IT Fruit and vegetable juices
Fruit and vegetable juices
(peach juice; neotame-based sweeteners for beverages)

IT Alcohols, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(polyhydric; neotame-based sweeteners for beverages)

IT **Beverages**
(sports; neotame-based sweeteners for beverages)

IT Beer
(substitutes; neotame-based sweeteners for beverages)

IT 50-99-7, Dextrose, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 81-07-2, Saccharin 100-88-9D, Cyclamate, derivs. 8013-17-0, Invert sugar 20702-77-6, Neohesperidin dihydrochalcone 22839-47-0, Aspartame 33665-90-6D, Acesulfam, salts 53956-04-0 55589-62-3 56038-13-2, Sucralose 80863-62-3, Alitame 165450-17-9, Neotame
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(neotame-based sweeteners for beverages)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD: ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 30 OF 45 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:336722 HCAPLUS

DOCUMENT NUMBER: 131:143644

TITLE: Stability and degradation of the high-intensity sweeteners: aspartame, alitame, and sucralose

AUTHOR(S): Hutchinson, Sheryl A.; Ho, Gregory S.; Ho, Chi-Tang

CORPORATE SOURCE: Department of Food Science, Rutgers University, New Brunswick, NJ, 08901-8520, USA

SOURCE: Food Reviews International (1999), 15(2), 249-261
CODEN: FRINEL; ISSN: 8755-9129

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review and discussion with 25 refs. More than 170 million Americans consume low-calorie foods and **beverages**. The interest of the consumer in low-calorie foods that contain alternative sweeteners has grown. Currently, non-nutritive high-intensity sweeteners, aspartame and sucralose, have been approved for use in the United States. Another sweetener, alitame, used in other countries such as Australia and China has not been granted approval for use in the States.

CC 17-0 (Food and Feed Chemistry)

IT 22839-47-0, Aspartame 56038-13-2, Sucralose 80863-62-3,
AlitameRL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(stability and degradn. of high-intensity **sweeteners**)REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 31 OF 45 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:605994 HCAPLUS

DOCUMENT NUMBER: 129:329904

TITLE: Physicochemical properties of sweeteners in artificial saliva and determination of a hydrophobicity scale for some sweeteners

AUTHOR(S): Hutteau, F.; Mathlouthi, M.

CORPORATE SOURCE: Laboratoire de Chimie Physique Industrielle,
Universite Reims Champagne-Ardenne, Faculte des
Sciences, Reims, 51687, Fr.SOURCE: Food Chemistry (1998), 63(2), 199-206
CODEN: FOCHDJ; ISSN: 0308-8146

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Saliva, the 1st physiol. secretion induced by ingestion of food or **beverages**, plays an extensive role in the oral cavity and in taste perception. The influence of salts and proteins (the major constituents of saliva) on physicochem. properties of sweeteners is studied. Previous findings on the effects of KCl, NaCl and MgCl₂ on sweetener properties are now completed with the study of CaCl₂. Ca²⁺ modifies the type of hydration of sugars and polyols and has a detergent effect on sweet solns. As water structure is sensitive to the presence of salts, physicochem. properties of sugars, polyols and intense sweeteners are detd. in artificial saliva. Proteins also play a major part in hydration and surface properties of stimuli in saliva. All physicochem. properties detd. in this work help in the mechanistic elucidation of sweet taste chemoreception. A scale of hydrophobicity is established for some

sweeteners using partition coeff. and contact angle measurements.
CC 17-6 (Food and Feed Chemistry)
IT 50-70-4, D-Glucitol, biological studies 50-99-7, D-Glucose, biological studies 57-48-7, D-Fructose, biological studies 57-50-1, Sucrose, biological studies 58-08-2, Caffeine, biological studies 68-12-2, DMF, biological studies 87-99-0, Xylitol 128-44-9, Sodium saccharin 139-05-9, Sodium cyclamate 149-32-6, Erythritol 585-86-4, Lactitol 585-88-6, Maltitol 804-63-7, Quinine sulfate 1330-20-7, Xylene, biological studies 4990-85-6 22839-47-0, Aspartame 55589-62-3 56038-13-2, Sucralose 64519-82-0, Isomalt 80863-62-3, Alitame 150436-68-3, Sodium 2-(4-methoxyphenoxy)propionate 215248-12-7, Isomaltulitol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(physicochem. properties of **sweeteners** in artificial saliva and detn. of a hydrophobicity scale for **sweeteners**)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT